

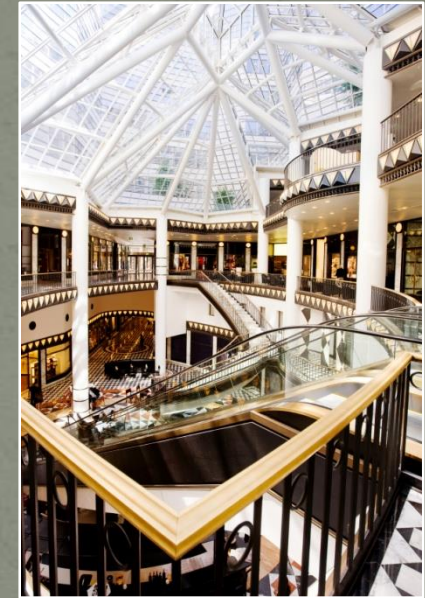
# The Elusive Behavior Changing Education Program

*A Partnership Effort.....*



# The Challenge

- 1) To capture audience attention amid increasing competition from multiple sources;



- 2) To get people to utilize environmental/science information in their daily lives to make decisions that allow for the sustainability of the GTMNERR and its watershed;



# Exploring our Environment

## *A Hands-on Educational Opportunity for Adults*

History: 2003-present

Schedule: Bi-annual; Fall & Spring  
1 week; Monday-Friday

Offered: GTMNERR's Marineland Office

Staffing: 1 Sea Grant employee  
1-2 GTMNERR employees



# Program Logistics:

- Small Audience (<20)
- Audience: primarily locals  
Adults (mostly general public)
- Participant fee; \$100.00
- Experts given honorarium or  
charity donation on an *as needed*  
*basis*





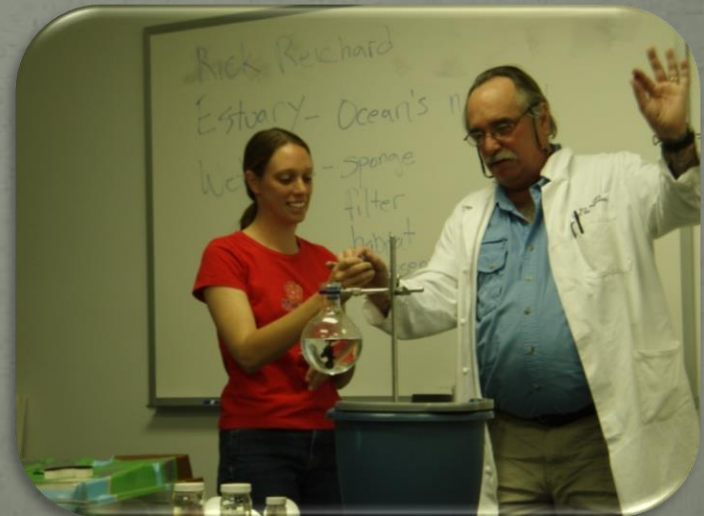
50% Lecture, 50% Hands-on





50% Indoors/50% Outdoors;

What About No Adults Left Indoors?



# Information collection: Immediate Reactions

Exploring our Environment—March 16-20, 2009

EVALUATION

This training was designed to provide you with knowledge about coastal ecology and human interactions with the coastal environment. Please take a few minutes to fill out both sides of the following form. Your responses will be used to help decide the design and content of future programs.

1. As a result of this training...

	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
I am more knowledgeable on the subject of beach ecology and sea turtle biology	✓				
I am more knowledgeable on the subject of estuaries and water quality	✓				
I am more knowledgeable on the subject of shorebirds	✓				
I am more knowledgeable on the subject of marine mammals	✓				
I am more knowledgeable on the subject of coastal hammock ecology	✓				
I am more knowledgeable on the subject of invasive species	✓				

2. Please answer the following questions:

	Very useful	Moderately useful	Not sure	Slightly useful	Not useful
How useful was the information presented?	✓				
How useful were the handouts?	✓				

3. I plan to share the information presented in the program with others

Definitely will	Probably will	Undecided	Probably not	Definitely not
✓				

4. Please list specific activities or information that you found most useful/interesting.

- beach ecology
- Shore birds
- Sea Turtles
- Reading a fish
- Cetacean biology

5. Did you learn any ways that you can modify your lifestyle to help decrease your impact on the environment? Please be specific.

Yes - decrease plastic use  
 - be mindful of plantenga - do not use  
 - be respectful of shore birds nest & terrain  
 - invasive plants  
 - others

6. Was there anything you would have liked to have seen included in the workshop or do you have suggestions for topics for future workshops?

I don't think I could have absorbed another thing!

7. Do you have any suggestions that might improve the way the workshop was conducted?

More "stretch" breaks - I do not do slide presentations. Back to back. "Brain overload"

8. Would you recommend this training to others?

Definitely would	Probably would	Undecided	Probably not	Definitely not
✓				

Please use the remaining space for any further comments.

Most Fun: Sea Beans & Beach search  
 Dolphins & Napa Coast.  
 Fish Printing

\*Planning Tool & Quick Assessment  
 42 paper surveys analyzed from 2003-2008;

98% indicated they learned more about estuaries and water quality.  
 59.5% indicated they intended to modify their lifestyle in some way (Q.#5)

Testimony: "This program truly has changed me--how I look and respond to my environment". Program participant November, 2010



# Self-Reported Behavior Changing Results:

ONLINE SURVEY- **December 2008**  
(participants from 2003-2008)

**RESPONSE RATE: 38.7% (24/62)**

Q #1 I learned new information about:

Conserving water in my home	45.8% (11/24)
Conserving water in my landscape	62.5% (15/24)
Problems caused by marine debris	87.5% (21/24)
Human impacts on manatees	79.2% (19/24)
Human impacts on sea turtles	91.7% (22/24)
Estuary water quality	100.0% (24/24)
Invasive species	91.7% (22/24)

Q#2 Please indicate which of these strategies you **have** adopted (check as many that apply):

- 44.4% (8/18) Reduced water use by reducing shower time or installing low-flow shower head
- 44.4% (8/18) Reduced water use by less toilet flushing or installing low-flow volume toilet
- 66.7% (12/18) Reduced water use by reducing sprinkler use
- 16.7% (3/18) Reduced water use by installing a rain barrel

Q#3 Have you noticed a reduction in your water use as a result of implementing the changes from question #2 relating to water? 43.5% (10/23)



# Behavior Changing Results:

Q#4 Please select as many of the following statements as they apply to you as a result of your participation in Exploring our Environment:

I make an effort to pick up plastics when I go to the beach	82.6% (19/23)
I have started using reusable bags instead of plastic when shopping	78.3% (18/23)
I have taken steps to reduce my contribution to stormwater pollution (e.g. by planting shorelines, reducing fertilizer use, etc.)	65.2% (15/23)

Q#5 If you have shared information learned during the class with other people, please estimate the number of people you have told: Told more than 10 56.5% 13/23

Q#6 Please indicate whether you became a volunteer with any of the groups suggested as a result of your participation in Exploring our Environment: 61.2% (8/13)

Q#7 If you have implemented other changes as a result of attending Exploring our Environment, please describe them below:

“Use different mulch. Changed light bulbs. Contribute to Matanzas River Basin project. Went to Tallahassee to ask for money for land preservation. Still looking for the elusive sea bean.”

“When I walk on the beach I am more respectful of shore birds' need not to be disturbed, so I walk around rather than through gatherings of them. I don't have a dog, but I have talked to dog owners I know about the need to keep dogs leashed on the beach.”

# Potential Reasons for Program Success:

- Subject Matter Experts (Information coming “straight from the field”)
- Strong presenter skills (experienced, enthusiastic)
- Addressed a variety of learning styles
- Participants given pathways for action (either suggestion of individual actions or resources for volunteering or actively engaging)

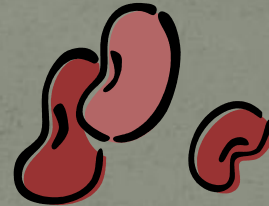


- Intense; 32+ hours
- Wide range of topics
- Informal learning environment—connections between instructors and students
- Mix of activity types
- Advertised as “exploratory” program, *not* behavior changing



# IF SIGNIFICANT BEHAVIOR CHANGE IS THE GOAL You Must Examine Your Beans.....

*-LARGE GROUP-  
NON-INTENSIVE  
“HANDS-OFF”*



*-SMALL GROUP-  
INTENSIVE  
“HANDS-ON”*

-Higher participant counts

Example: 1 hour program  
30 people  
12 times a year

=360 people  
=360 contact hours

-Lower participant counts

Example: 32 hour program  
20 people  
2 times a year

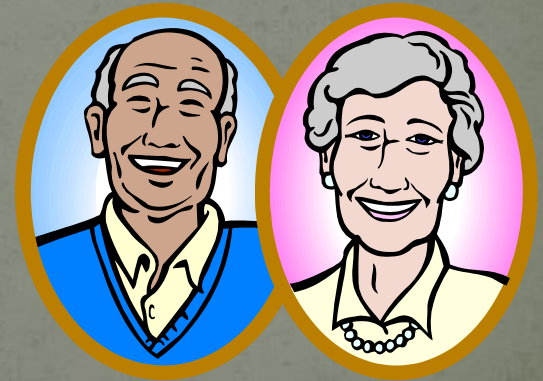
=40 people  
=1280 contact hours

# For Behavior Changing Programs Consider the Following:

- \*Given the reality of limited staffing and budgets
- \*The fact that we can't educate everyone about everything:



1. What is the behavior you want to change?
2. What is your timeframe for behavior change?
3. What audience should you target for highest likelihood of change?





# Lessons Learned & Future Direction:



\*Try to attain a better response rate to **all questions** in the survey, possibly offer incentives for complete surveys.

\*Track the survey **by class** so we'll have a more robust understanding of the **timeline for behavior change** indications.

\*Formally assess which particular aspects of the program were responsible for participants changing their behavior (Speakers? Resources? Combination?)



“Members of the public aren’t empty vessels waiting to be filled with science; the refusal to tailor such information to their needs virtually ensures it won’t be received or accepted”. *Chris Mooney; Author of Unscientific America*

"Citizens like to learn but they really want to *do* something concrete to make a difference. So education leading to understanding, that leads to action is way better than education leading to just understanding. Understanding without being able to act to improve the situation leads to frustration or apathy".  
*Norm Ruttan; Fostering Sustainable Behavior Forum*

### *Resources for Consideration:*

\* *Frontiers in Ecology Journal*—multiple articles (Volume 8, Issue 6 (August 2010)).

\*J.D. Miller. 1986. Reaching the Attentive and Interested Publics for Science. In *Scientists and Journalists: Reporting Science as News*. S.M. Friedman, S. Dunwoody, and C.L. Rogers (eds). New York: Free Press.